http://www.maths.warwick.ac.uk/~dmargeri/movie_page.html.

The description of the slender vortex method and the validation of EZ-vortex with stability results have been written in a paper [2] which has been submitted. This gives a written report of our work that will be assessed by peer referees. It also will make our results available to anybody among the C-Wake project.
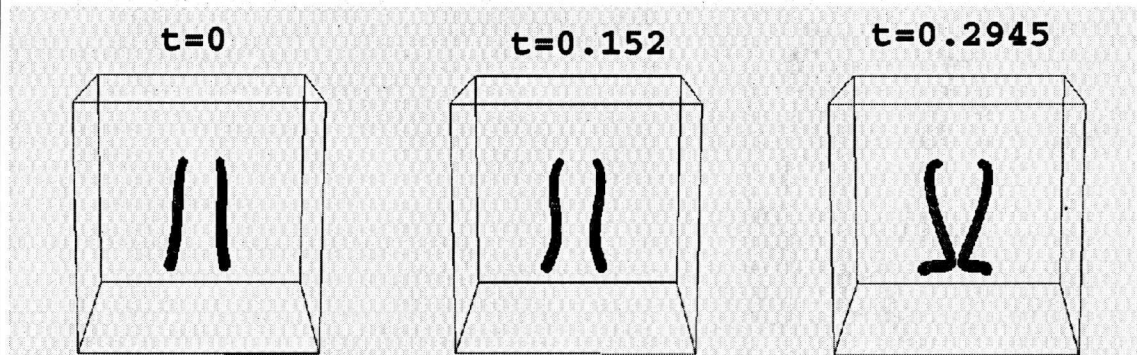
t=0   t=0.152   t=0.2945

Figure 1. *Vortex Filament Simulation of the non-linear instability regime of two contra-rotating vortex pair. Initial amplitude* $\rho_0 = 0.05$, *thickness* $\varepsilon = 0.02$, *wavelength* $\Lambda = 10.21$, *and plane angle* $\theta(t = 0) = 47.63°$.

Most amplified S1 mode of wavelength $\Lambda = 0.8976$

t=0   t=0.9500   t=1.3300

Long-wave S1 mode of wavelength $\Lambda = 7.85$
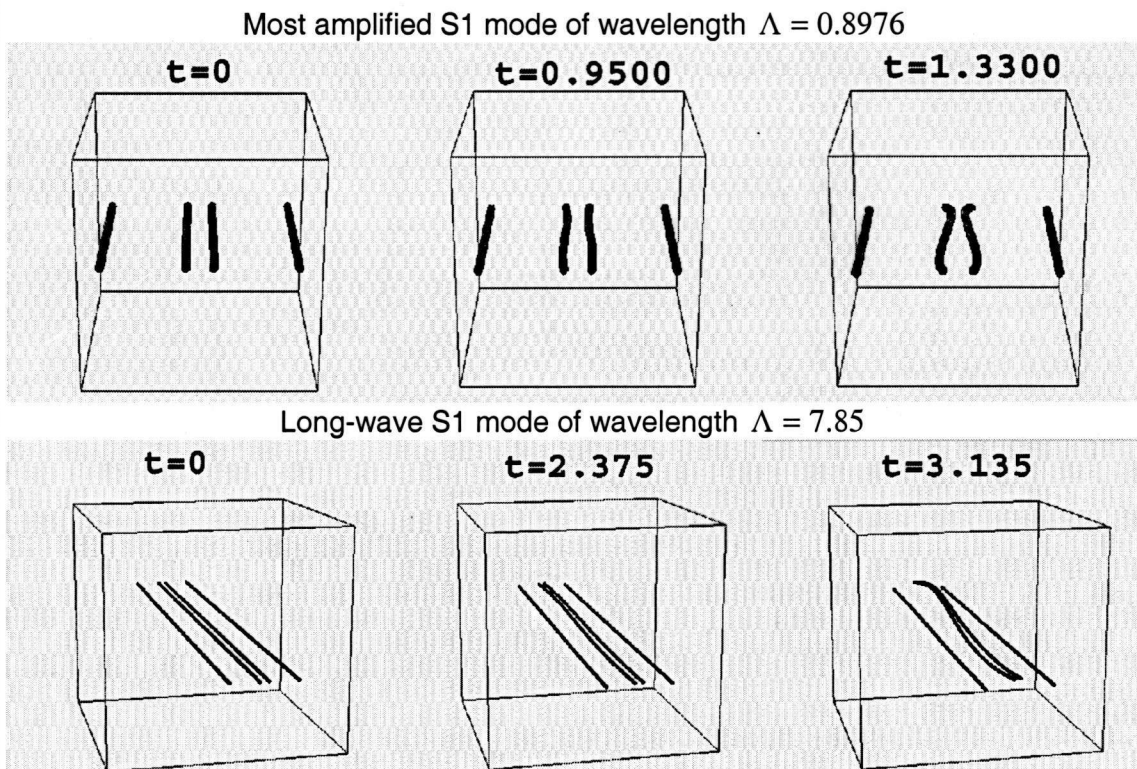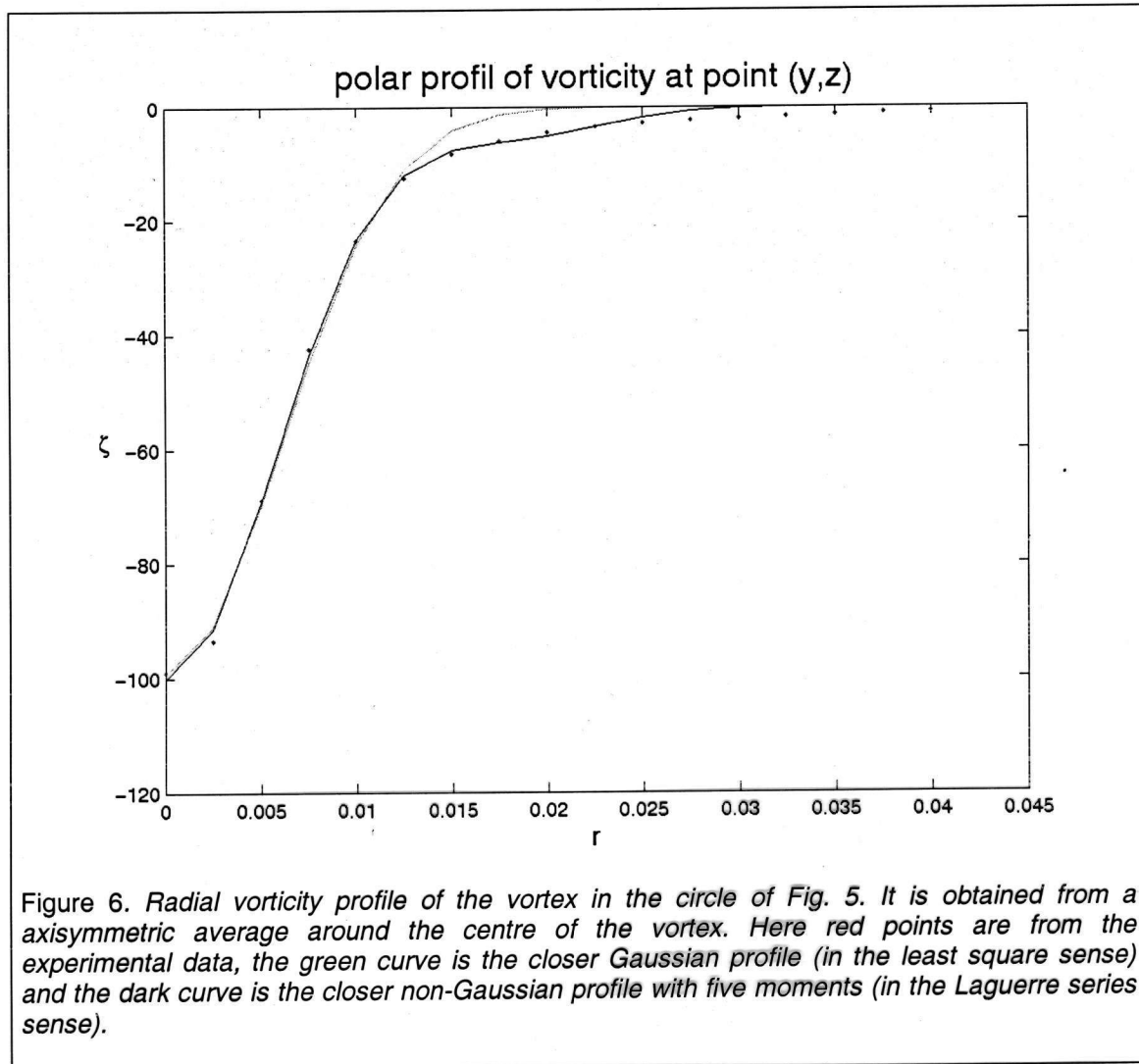
t=0   t=2.375   t=3.135

Figure 2. *Vortex Filament Simulation of the non-linear instability regime of typical modes for the four-vortex wake. Initial amplitude* $\rho_0 = 0.001$, *and initial thickness* $\varepsilon = 0.1$.

polar profil of vorticity at point (y,z)

Figure 6. *Radial vorticity profile of the vortex in the circle of Fig. 5. It is obtained from a axisymmetric average around the centre of the vortex. Here red points are from the experimental data, the green curve is the closer Gaussian profile (in the least square sense) and the dark curve is the closer non-Gaussian profile with five moments (in the Laguerre series sense).*
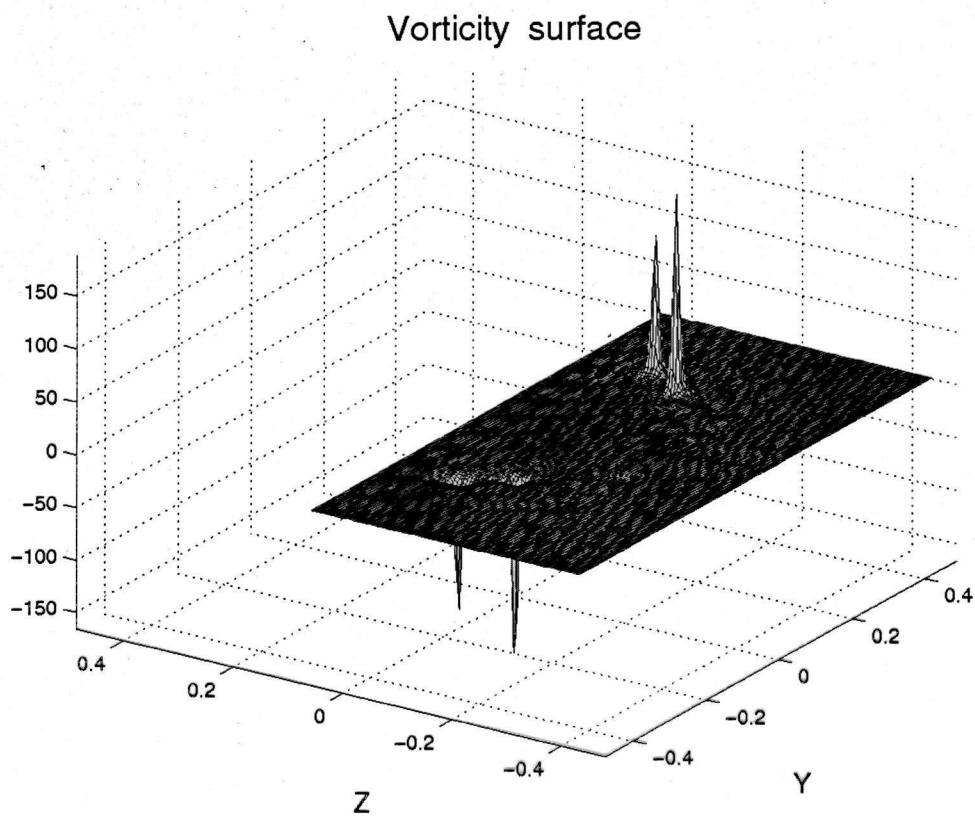
Vorticity surface

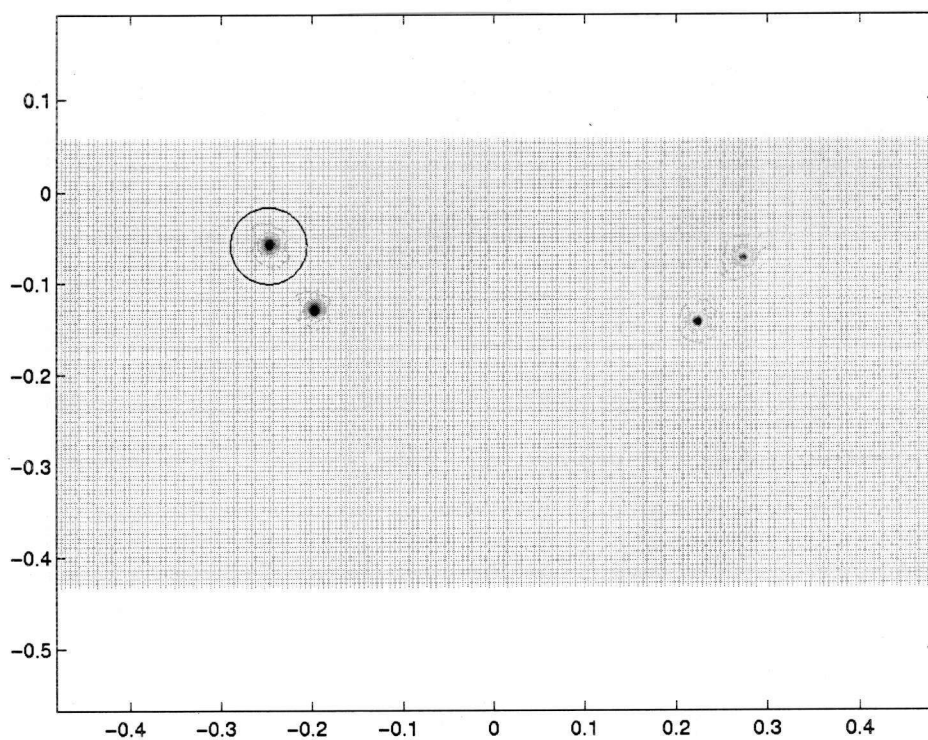Figure 4. *Vorticity surface (same data file as Fig. 3)*

Figure 5. *Contour-plot of vorticity (same data file as Fig. 3). The circle is the domain of analysis of the associated vortex.*